

Claims

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1. A method of manufacturing solid state capacitors comprising: providing an electrically conducting substrate; providing a pre-form layer of porous conducting material applied to a surface of the substrate, forming a plurality of upstanding porous anode bodies and wick bodies by configuring of the pre-form, each body electrically connected to the substrate; forming an electrically insulating layer on the exposed surface area provided by the porous anode bodies; forming a conducting layer on the insulating layer on the anode bodies; dividing the substrate into capacitor units, each comprising a portion of substrate provided with a porous capacitive body and a wick body, and for each unit: providing a cathode terminal in electrical contact with the conducting layer on the capacitive body, providing an anode terminal in electrical contact with the substrate portion,
- wherein the cathode terminal is formed on a surface of the capacitive body distal to the substrate portion and the anode terminal is formed on a distal surface of the wick body which anode terminal is adjacent and substantially co-planar with the cathode terminal, with the electrically conducting wick body providing

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electrical contact between the substrate portion and the anode terminal, so that the capacitors have anode and cathode terminals on a common face.

5 2. A method as claimed in claim 1 wherein the wick bodies are allowed to be provided with insulating and conducting layers along with the anode bodies, and wherein an electrical connection through the insulating layer is provided by subsequent removal of the applied
10 layers.

3. A method as claimed in claim 2 wherein the dividing of the substrate involves machining or cutting through a plane which passes through the wick bodies, thereby to
15 expose un-coated wick material with which an anode terminal contact may be made.

4. A method as claimed in claim 2 wherein the removal of layers is carried out on a face of each wick distal to
20 the substrate thereby to expose uncoated wick material with which an anode terminal contact may be made.

5. A method as claimed in claim 3 or claim 4 wherein a conductive material bridge electrically connects the
25 anode terminal and the exposed un-coated wick material.

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6. A solid state capacitor comprising a substrate portion and a capacitive body, which body comprises a porous anode body electrically connected to the substrate portion, an electrically insulating layer formed on the anode body surface area, and a conducting layer formed on the insulating layer, a surface of which capacitive body distal to the substrate portion is provided with a cathode terminal, characterised in that an anode terminal is provided adjacent and substantially co-planar with the cathode terminal, an electrically conducting wick providing electrical contact between the substrate portion and the anode terminal, thereby providing a capacitor having anode and cathode terminals on a common face, and wherein the wick is formed from the same porous conducting material as the anode body.

7. A capacitor, or method of forming capacitors, as claimed in any preceding claim wherein in each capacitor there are a plurality of anode terminals adjacent and substantially co-planar with the cathode terminal, each anode terminal electrically connected to the substrate by an associated wick.